CALIFORNIA STATE BOARD OF HEALTH.

MONTHLY BULLETIN.

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FLEA TIME.

The springtime is upon us and the festive flea will soon be unless we "watch out" and clean up. It is not literally true that "no dirt, no fleas," but the converse, "much dirt, more fleas" is.

They breed in carpets, cracks in the floor, on cats, dogs, and rats, and in the waste and dirt of basements. To keep free of them destroy their chance to breed. Domestic animals should have no place in the house, unless frequently washed with strong soap and water. Rats and mice must be destroyed. Carpets thoroughly cleaned twice a year, either by taking up and beating or cleaned by a strong suction machine. Floors and baseboards should be washed and scrubbed with some insecticide strong enough to kill both the mature flea and the larvæ. There are petroleum products that will do this and are harmless. Accumulated waste and dirt should be removed from basement or cellar and burned. Chloride of lime can be used freely and to good advantage in the dark corners of the cellar, which are difficult to keep clean. To be free from fleas requires a constant watch and care, but it pays. Besides, the discomfort from them they are an ever present source of danger. We know that they carry plague from rat or squirrel to man, and have reason to believe that other communicable diseases may also be carried by them. The means of ridding our houses of them are those of good sanitation, and these tend to good health.

The church, the school, and the theater should particularly be looked after. It is not unusual that they are rat-infested, and hence are

especially dangerous. They should be cleaned much more frequently than they are, and disinfected often to kill the insects and diseases that are certain to be there.

If these institutions were kept clean and free from insects the comfort and pleasure of attending them would be greatly enhanced and a vast amount of sickness prevented.

CALIFORNIA PUBLIC HEALTH ASSOCIATION.

The annual meeting of the California Public Health Association will be held at the Vendome Hotel, San Jose, at 10:00 A. M., April 19th. The State Board of Health's Sanitary Demonstration Car will be there, and demonstrations from it will form the basis of the work of the Association.

This being the day before the meeting of the State Medical Society, health officers should make a determined effort to attend and receive the benefit of the meetings of both societies.

SCHOOL SUPERVISION FOR HEALTH AND DEVELOPMENT.

There has been enacted by the Legislature which is just drawing to a close a law entitled "An act to provide for health and development supervision in the public schools of the State of California."

The purpose of the law is—

First. To secure the correction of developmental and acquired defects of both pupils and teachers which interfere with health, growth and efficiency, by complete physical examination.

Second. To adjust school activities to health and growth needs, and to development processes, and to attend to all matters pertaining to school hygiene.

Third. To bring about a special study of mental retardation and deviation of pupils in the public schools.

The enactment of this law gives the seal of State approval upon a movement which in Los Angeles and a few other cities has already shown its usefulness.

There are in our schools a very large per cent of pupils who are suffering from some entirely removable defect, but which is of so severe a nature that unless relieved the child is hampered in his study and oftentimes driven from school an apparent dullard, while in reality bright. The sight may have been defective to such a degree that the child could not see the work, or if the hearing was at fault, hear the questions and explanations.

This is no flight of fancy, but a fact that is demonstrated daily to the observant person. These defects in development can largely be removed or remedied, and the child who would otherwise have either been driven from school or have been a laggard in his class developed into a bright scholar and oftentimes a leader.

The removal of physical defects is not by any means the only aim of this movement, as shown by the second purpose: "To adjust school activities to health and growth needs and to development processes, and to attend to all matters pertaining to school hygiene."

The importance of this is evident to every one who has studied the question and observed the broken health of boys and girls who have been crowded beyond their physical strength, that they may complete an arbitrary course of study, or possibly for the purpose of attaining a high rank.

It is the belief of those who are urging the measure that a sound, healthy body is of prime importance, that while mental development is important, it should go hand in hand with physical development, and that the greatest good can be secured from our schools by a careful supervision of health conditions.

It is earnestly to be hoped that the time will quickly come when every school in the State, whether city or country, will be under this careful supervision. School supervision for health purposes does not mean, as many suppose, merely an examination for contagious or infectious diseases and to remove physical defects. It has a vastly broader field of action, and purposes to build and train the child symetrically and not to make either a physical or mental athlete.

MOSQUITOES.

We stand appalled at the terrible destruction of life by the recent earthquakes in Italy, and generously rush our millions of dollars to the aid of the sufferers, but the mosquito probably kills more people each year than were killed in that terrible catastrophe.

Yellow fever and malaria are carried by them, and the death rate from these diseases depends solely upon their prevalence. Still the most of us sit idly by and let the pest breed, buzz and bite, and take our chills and quinine, and blame or bless a Divine Providence, according to the mental peculiarity of the victim and the severity of the chill.

It is certainly useless to have mosquitoes and we have only to follow well established methods to be rid of them. We have simply to stop their breeding and now is the time to act. THEY BREED ONLY IN WATER, but a flower pot or tomato can, if it contains water, is as good as a pond. Everything around a place that contains water should be emptied and watering troughs cleaned and filled with fresh water twice a week. Pools and swamps should be drained, and when this is impossible the water covered with coal oil.

In cities and towns it is particularly easy to keep rid of them, as they do not generally fly far, except some salt water species. If they are common in inland cities they are a home production and one of which any self-respecting city should be ashamed.

If no standing water is allowed there will be no mosquitoes, but it requires care and watchfulness on the part of the individual and authorities. Where there are open cesspools there are apt to be mosquitoes, for the conditions are favorable for their breeding. The cesspools should be closed or covered with coal oil. The water tanks where they exist should be carefully screened with a fine mesh wire cloth. Cisterns are also good breeding places, and should be protected. In fact, everything that contains standing water should be emptied or screened, and if this is done by *everybody* we will be free from a pest that is at once a source of great annoyance, discomfort, and danger.

DEPARTMENT OF VITAL STATISTICS.

GEORGE D. LESLIE, STATISTICIAN.

VITAL STATISTICS FOR FEBRUARY.

Marriages.—The marriages reported for February number 1,594, and for an estimated State population of 2,037,929, represent an annual rate of 10.2, against 9.9 for January.

The February totals were highest for the following counties: Los Angeles, 350; San Francisco, 302; Alameda, 186; Marin, 62; Orange, 55, and Santa Clara, 52.

The aggregate for San Francisco and the other bay counties (Alameda, Contra Costa, Marin, and San Mateo) was 588.

Births.—In February there were reported 2,318 living births, representing an annual birth-rate of 14.8, as compared with 13.9 for the preceding month.

The totals were highest for the following counties: San Francisco, 498; Los Angeles, 470; Alameda, 223; Santa Clara, 144; Fresno, 119; Sacramento, 56; San Bernardino, 52, and San Diego, 50.

Altogether 1,357 births were registered in the twenty-four freeholders' charter cities, the leading cities being as follows: San Francisco, 498; Los Angeles, 332; Oakland, 129; Sacramento, 42; San Diego, 37; Alameda, 36; Pasadena, 32; Berkeley, 29; Fresno and San Barbara, each 27, and San Jose, 26.

The aggregate for San Francisco and the trans-bay cities (Alameda, Berkeley, and Oakland) was 692, and for San Francisco and the other bay counties was 778. Similarly, the total for Los Angeles and neighboring chartered cities (Long Beach, Pasadena, and Santa Monica) was 378, and for the entire county was 470.

Deaths.—Altogether 2,486 deaths, exclusive of stillbirths, were reported for February, the annual death-rate being 15.9, against 15.1 for the month before.

The death totals were highest for the following counties: Los Angeles, 549; San Francisco, 526; Alameda, 270; San Bernardino, 81; Santa Clara, 76; San Joaquin, 70; Sacramento, 68, and Fresno, 57.

There were altogether 1,466 deaths in the twenty-four freeholders' charter cities, the highest totals being as follows: San Francisco, 526; Los Angeles, 366; Oakland, 128; Sacramento, 48; San Diego, 39; Pasadena and Stockton, each 36; Berkeley, 33, and Alameda, 32.

The aggregate for the urban district (San Francisco and the trans-bay cities) was 719, and for the entire metropolitan area (San Francisco

and the other bay counties) was 848. Similarly, the total for Los Angeles and neighboring chartered cities was 429, and for the whole county was 549.

Causes of Death.—In February there were 463 deaths, or 18.6 per cent of all, from diseases of the circulatory system, and 404, or 16.3 per cent, from various forms of tuberculosis, heart disease thus leading tuberculosis as in previous months.

Other notable causes of death in February were diseases of the nervous system, 272; diseases of the respiratory system, 246; violence, 226; cancer, 166; Bright's disease and nephritis, 154; and diseases of the digestive system, also 154.

There were only 87 deaths from epidemic diseases in February against 107 in January. As usual, the leading epidemic diseases were typhoid fever (28) and diphtheria and croup (23), but the proportions per 1,000 total deaths were less in each case for February than for January.

Further particulars appear in the following table, which gives the number of deaths from certain principal causes reported for February, as well as the proportions from each cause per 1,000 total deaths for both February and January:

Cause of Death.	Deaths: February.	Proportion per 1,000.	
		February.	January.
ALL CAUSES	2,486	1,000.0	1,000.0
Typhoid fever	28	11.3	13.0
Malarial fever	2	0.8	1.1
Smallpox	1	0.4	0.4
Measles	12	4.8	2.3
Scarlet fever	2	0.8	2.3
Whooping-cough	6	2.4	3.8
Diphtheria and croup	23	9.3	10.7
Influenza	3	1.2	3.4
Other epidemic diseases	10	4.0	3.8
Tuberculosis of lungs	358	144.0	132.7
Tuberculosis of other organs	46	18.5	22.5
Cancer	166	66.8	55.7
Other general diseases	69	27.8	43.1
Meningitis	37	14.9	13.4
Other diseases of nervous system	235	94.5	84.7
Diseases of circulatory system	463	186.2	161.3
Pneumonia and broncho-pneumonia	170	68.4	96.1
Other diseases of respiratory system	76	30.6	34.3
Diarrhea and enteritis, under 2 years	31	12.5	14.1
Diarrhea and enteritis, 2 years and over	16	6.4	4.2
Other diseases of digestive system	107	43.0	51.5
Bright's disease and nephritis	154	61.9	57.6
Childbirth	21	8.5	8.8
Diseases of early infancy	80	32.2	34.7
Suicide	50	20.1	18.3
Other violence	176	70.8	65.2
All other causes	144	57.9	61.0

Geographic Divisions.—The table on page 98 shows the number of deaths from main classes of diseases reported for February for the several geographic divisions of the State, including the metropolitan area, or "Greater San Francisco," in contrast with the rural counties north of Tehachapi.

Geographic Division.	Deaths: February. All Causes	Epidemic Diseases	Tuberculosis (All Forms)	Cancer	Diseases of Nervous System	Diseases of Circulatory System	Diseases of Respiratory System	Diseases of Digestive System	Violence	All Other Causes
THE STATE	2,486	87	404	166	272	463	246	154	226	468
Northern California	313	16	42	17	46	59	35	20	21	57
Coast counties	145	6	18	9	29	29	9	10	8	27
Interior counties	168	10	24	8	17	30	26	10	13	30
Central California	1,386	49	182	95	149	281	143	92	142	253
San Francisco	526	22	65	40	44	123	57	32	53	90
Other bay counties	322	8	48	24	36	68	34	19	28	57
Coast counties	178	7	26	12	30	29	12	14	15	33
Interior counties	360	12	43	19	39	61	40	27	46	73
Southern California	787	22	180	54	77	123	68	42	63	158
Los Angeles	549	14	125	43	50	87	43	30	39	118
Other counties	238	8	55	11	27	36	25	12	24	40
Northern and Central California	1,699	65	224	112	195	340	178	112	163	310
Metropolitan area	848	30	113	64	80	191	91	51	81	147
Rural counties	851	35	111	48	115	149	87	61	82	163

DEPARTMENT OF BACTERIOLOGY.

DR. A. R. WARD, DIRECTOR.

AN ANTISEPTIC TELEPHONE TRANSMITTER WHICH ISN'T ANTISEPTIC.

"The Antiseptic Telephone Transmitter" is the name of a new mouthpiece which is now on the market, as an instrument through which the possibility of transmitting disease germs by frequent use of the telephone may be eradicated. This mouthpiece, which fits any telephone, is made of hard rubber lined with a light white metal, which is perforated by several rows of holes, thus allowing means for ventilation and ready access for the disinfectant used to reach the entire inner surface of the transmitter. Within the outer rim runs a wick, which is to be kept saturated with a solution of formaldehyde and aromatic oils. The action of the vapors and gases produced by this solution is said to keep the transmitter constantly disinfected and deodorized, thus making it "healthy and clean to use." The following tests were undertaken to determine just wherein the transmitter succeeded or failed in its purpose of constant disinfection.

Previously, the telephones used in the laboratory had been examined for bacteria and their presence in the mouthpieces demonstrated. The commoner forms of bacteria like the *Staphylococci*, a common form of

pus-producing organisms, and *Bacillus subtilis,* which is a spore former and of very wide distribution, were those most generally found. These, with a few other common forms, representing a wide range of resistance to disinfection, light, and heat, were chosen for the following tests.

The antiseptic action of the solution itself; of the fumes of the solution acting directly on bacteria; and the action of the fumes as used in the telephone transmitter were carefully tested with the results as shown below:

(1) *Solution acting directly on bacteria.*

Small squares of sterile filter paper were inoculated with bacteria and immersed directly in the solution for varying lengths of time, ranging from one to thirty minutes. The organisms used were *Staphylococcus pyogenes aureus, Bacillus coli communis* and *Bacillus subtilis.* It was found that none of the cultures made from these bacteria grew, while all of the control cultures (papers inoculated at the same time and from the same stock, but not immersed in the solution) grew well after an incubation of twenty-four hours.

(2) *Fumes of the solution acting directly on bacteria.*

The action of the fumes of the solution was tested in a similar way. Pieces of the sterile filter paper inoculated with bacteria were introduced into a sterile covered glass dish, in which was a quantity of the solution, thus exposing the bacteria to the direct action of the fumes produced by it. The organisms used in this case were *Staphylococcus pyogenes aureus* and *Bacillus subtilis.* They were exposed to the fumes from one minute to one hour. It was found that an exposure of thirty minutes did not in any way affect the growth of the bacteria, while exposures from thirty to sixty minutes succeeded in retarding the growth in varying degrees, although in no case were the bacteria killed, all cultures showing an abundant growth after an incubation of seventy-two hours. The accompanying table shows the results of this test in detail:

Time of Exposure.	*Staphylococcus pyogenes aureus.*					*Bacillus subtilis.*				
	Time of Incubation, hrs.				Control.	Time of Incubation, hrs.				Control.
	24	48	52	72		24	48	52	72	
1 minute	+				+	+				+
5 minutes	+				+	+				+
15 minutes	+				+	+				+
30 minutes	−	+			+	+				+
45 minutes	−	−	+		+	−	+			+
60 minutes	−	−	−	+	+	−	−	−	+	+

\+ Indicates growth. — Indicates no growth.

(3) *Action of the fumes as applied in the transmitter.*

Finding that the fumes of this solution, although allowed to act directly on the bacteria, did not succeed in entirely checking their

growth, a set of tests in which the transmitters themselves were used was undertaken to determine whether it succeeded at all in its purpose of rendering the telephone "clean and healthy to use" by a constant killing of the bacteria falling into it. Accordingly, two of the transmitters were procured and used in this test. They were sterilized before being used by boiling. The wick in one of them was kept saturated with the solution, while the other was allowed to remain dry and was used as a control test in each case. Two sets of experiments were run with a view of determining whether or not any other factors such as sunlight or darkness had any effect on the general results. The first set, therefore, was carried on in a dark, cool closet. The organisms used in inoculating the mouthpieces were here, also, *Staphylococcus pyogenes aureus* and *Bacillus subtilis* and in each case the transmitters were inoculated in a uniform manner, *i. e.*, twice on the outer rim near the wick (A and B); twice on the sides, midway between the rim and the back (C and D); and at the back of the mouthpiece (E). This lettering is the same in all the following tables.

Table 1 shows in detail the results of the tests which were carried on in the dark. In no case was the growth of the organisms checked or retarded, all showing an abundant growth on a short incubation, even after an exposure of forty-eight hours.

In the second set of tests, the transmitters were covered only by a sterile bell jar and were allowed to remain in the light on the laboratory desk, as near as possible to the telephone which is constantly in use.

Inoculations were made with *Staphylococcus pyogenes aureus, Bacillus coli communis, Psuedomonas pyocyaneus,* and *Baccillus subtilis,* the exposure in each case being twenty-four hours. The results of this experiment show that not all of the cultures made from the inoculated transmitter grew; that others were retarded in their growth and still others grew well after incubation of twenty-four hours. It is also noticeable that A, B and either C or D (outer rim and sides of the transmitter) were the ones most often affected, while E at the back of the transmitter showed slow or scanty growth in only one instance. It must also be noticed, however, that practically the same results were obtained from cultures made from the transmitter used as a control in which the solution was not used.

TABLE I.

A. Inoculated with *Staphylococcus pyogenes aureus.* Exposure forty-eight hours in a dark closet.

	Test.			Control.		
Time Incubation.	24 Hours.	48 Hours.	72 Hours.	24 Hours.	48 Hours.	72 Hours.
A	+			+		
B	+			+		
C	+			+		
D	+			+		
E	+			+		

B. Inoculated with *Bacillus subtilis.* Exposure forty-eight hours in a dark closet.

	Test.			Control.		
Time of Incubation.	24 Hours.	48 Hours.	72 Hours.	24 Hours	48 Hours.	72 Hours.
A	+			+		
B	+			+		
C	+			+		
D	+			+		
E	+			+		

TABLE II.

A. Inoculated with *Staphylococcus pyogenes aureus.* In diffuse light, exposure twenty-four hours.

	Test.			Control.		
Time of Incubation.	24 Hours.	48 Hours.	72 Hours.	24 Hours.	48 Hours.	72 Hours.
A	−	−	+	−	−	+
B	−	−	+	−	+	+
C	−	+	+	−	+	+
D	+	+	+	−	+	+
E	+	+	+	+	+	+

B. Inoculated with *Bacillus coli.* Diffuse light, exposure twenty-four hours.

	Test.			Control.		
Time of Incubation.	24 Hours.	48 Hours.	72 Hours.	24 Hours.	48 Hours.	72 Hours.
A	−	+	+	−	−	+
B	−	+	+	−	+	+
C	−	+	+	+	+	+
D	+	+	+	+	+	+
E	+	+	+	+	+	+

C. Inoculated with *Pseudomonas pyocyaneus.* In diffuse light and sunlight, exposure twenty-four hours.

	Test.			Control.		
Time of Incubation.	24 Hours.	42 Hours.	72 Hours.	24 Hours.	48 Hours.	72 Hours.
A	−	+	+	−	+	+
B	−	−	−	−	−	+
C	−	+	+	−	−	+
D	−	−	+	−	+,	+
E	−	+	+	−	+	+

D. Inoculated with *Bacillus subtilis*. Diffuse light and sunlight, exposure twenty-four hours.

	Test.			Control.		
Time of Incubation.	24 Hours.	48 Hours.	72 Hours.	24 Hours.	48 Hours.	72 Hours.
A	−	+	+	−	−	+
B	−	−	+	+	+	+
C	+	+	+	−	+	+
D	+	+	+	+	+	+
E	+	+	+	+	+	+

It is evident from the results obtained above that this "antiseptic telephone transmitter" fails in its main purpose of disinfection by a constant killing of bacteria by means of its antiseptic "vapors and gases." In no case were the bacteria killed, and the fact that the tardiness in the growth of the cultures taken from the outer rim took place as frequently in the control as well as in the test, indicates that the chief factor in inducing such tardiness was something other than the action of the solution. The exposure in the dark closet resulted in having absolutely no effect on the growth of the cultures made at the end of the forty-eight hours exposure, and it is undoubtedly true that the retarded growth obtained from the tests made in the direct light were due in all cases to the action of light on the bacteria, rather than the action of the disinfectant. The outer rim of the transmitter being exposed most to the light was most affected, while the bacteria at the back of the transmitter, being more or less shadowed and darkened, were least affected.

The factors of air currents and evaporation have not been dealt with in these experiments, the endeavor being to give the test every advantage in this regard. The results of the experiments, therefore, force us to conclude that the solution fails in its work of constant disinfection of the mouthpiece and that here, as in many similar instances, an odor is called upon to do a work far beyond its power.

Examinations Made in February.

Diphtheria	89
Tuberculosis	22
Typhoid	7
Water	5
Miscellaneous	11
Total	134

DEPARTMENT OF PURE FOODS AND DRUGS.

PROF. M. E. JAFFA, DIRECTOR.

Among the official samples sent in by inspectors during the past month, are several which appear to be from old stock, no doubt on the shelves of the retailers before the present law went into effect. It should be understood that many preparations which were not in violation of the old laws, are in violation of the California Pure Foods and Drugs Act of March 11, 1907. This applies to adulteration, misbranding and mislabeling. It would therefore appear to be necessary that retailers be more careful in offering old goods for sale, because it must be remembered that if the retailer does not possess a guaranty from the wholesaler or jobber, he, the retailer, is liable to prosecution for all violations found with reference to the goods he has on hand or offers for sale. If the retailer has any doubt concerning any labels on any old goods, it will be to his advantage to communicate either with the Secretary of the State Board of Health, Sacramento, California, or the Director of the State Food and Drug Laboratory, University of California, Berkeley, California, who will do all in their power to help in this matter.

Copies of the Pure Food and Drug Laws can be obtained by applying to either of the above addresses.

Some amendments have been made by the present legislature to the Pure Food Law which will go into effect very shortly. These amendments are given below and particular attention is called thereto:

Section 4, relating to the adulteration of food, is amended by the addition of two more cases, as follows:

Eighth. In the case of vinegar: If it be artificially colored.

Ninth. If it does not conform to the standard of purity therefor as proclaimed by the Secretary of the United States Department of Agriculture.

Section 6, relating to mislabeling and misbranding, is amended by the addition of one more case, as follows:

Sixth. If, having no label, it is an imitation or adulteration, or is sold or offered for sale under a name, designation, description or representation which is false or misleading in any particular whatever; and in case of eggs and poultry: if they have been kept or packed in cold storage, or otherwise preserved, they must be so labeled when offered or exposed for sale.

The following decision has just been received and is of interest to many in California and on the Pacific coast. This decision has also a direct bearing on "canned fish" put up in California, particularly this is true with reference to the California sardine, some of which is mislabeled and it is hoped that the ruling given herewith will act as a warning to those interested in this industry.

FOOD INSPECTION DECISION 105.

THE LABELING OF CANNED SALMON AND WHITE FISH.

Many inquiries have been made of the Department regarding the nomenclature commonly employed in designating canned salmon. It is stated that inferior species of salmon are frequently canned and labeled with some name which is understood by the trade to indicate the presence of fish of an inferior variety but which is not so understood by the consumer; as, for instance, "Alaska Salmon." The Department is informed by the Bureau of Fisheries that the species of salmon in the United States are as follows:

1. *Oncorhynchus nerka.* Sockeye or sockey salmon, blueback salmon, red salmon, redfish, or nerka salmon.
2. *Oncorhynchus tschawytscha.* Chinook salmon, king salmon, quinnat salmon, tyee salmon, or spring salmon.
3. *Oncorhynchus gorbuscha.* Humpback salmon, pink salmon, or gorbuscha salmon.
4. *Oncorhynchus kitsutch.* Coho salmon, silver salmon, or medium red.
5. *Oncorhynchus keta.* Calico salmon, keta salmon, dog salmon, or chum salmon.
6. *Salmo gairdneri.* Steelhead salmon, steelhead, hardhead, winter salmon, salmon trout, or square-tailed trout.
7. *Salmo salar.* Atlantic salmon.

Two additional species of landlocked salmon exist in certain New England and Canadian lakes. Neither of these nor the Atlantic salmon is ever canned. Considering this fact, and the further fact that many packers put up humpback and dog salmon under fancy names and thus sell them to consumers who may believe them to be of superior varieties, it is held that canned salmon should be labeled with one of the common names mentioned above as belonging to the species of fish canned.

A similar question has frequently been raised regarding whitefish. A fish designated as *Argyrosomus artedi*, usually called lake herring or cisco, is put on the market at times as "family whitefish." The following is quoted from a communication from the Bureau of Fisheries:

> The whitefish tribe in America has numerous representatives, and at least 12 species are regularly caught for market, and others will doubtless in time acquire economic importance. Those now taken are:
>
> Common whitefish of Lake Ontario and Lake Erie, *Coregonus albus;* common whitefish of Lake Huron, Lake Michigan, Lake Superior, Lake of the Woods, Lake Winnipeg, etc., *Coregonus clupeiformis;* Rocky Mountain whitefish, *Coregonus williamsoni;* broad whitefish or Alaska whitefish, *Coregonus kennicotti;* Menominee whitefish or round whitefish, *Coregonus quadrilateralis;* Lake herring, or cisco, *Argyrosomus artedi;* jumbo herring, or Erie cisco, *Argyrosomus eriensis;* Huron cisco or herring, *Argyrosomus huronius;* moon-eye, or chub, *Argyrosomus hoyi;* longjaw whitefish, or bloater, *Argyrosomus prognathus;* longjaw, of Lake Superior, *Argyrosomus zenithicus;* blackfin or bluefin whitefish, *Argyrosomus nigripinnis;* tullibee whitefish, *Argyrosomus tullibee.*
>
> To most of these species the name "whitefish," with a qualifying word, is strictly applicable; but there is a wide range in food value, and to permit the sale of most of them as plain "whitefish" would be unjust to the public. The Bureau does not know that this general question has come before your Board, or that you wish to consider it at this time, but sooner or later it will be necessary to render a decision, and at any time it may be brought to your attention because of cases arising in the Washington (D. C.) market, where one of the commonest and best of the fish foods is "smoked whitefish"—consisting of any one of three or four species of *Coregonus* and *Argyrosomus,* none of them *clupeiformis* or *albus.* Under these circumstances it would appear to this Bureau to be proper and feasible to require the different kinds of preserved whitefish to be designated by their qualifying names. The most appropriate name for "family whitefish" is lake herring or cisco; but whitefish as here used would mean, or would be intended to mean, the common whitefish, the best of the tribe.

In harmony with the opinion of the Bureau of Fisheries, the Board holds that the term "whitefish" should be applied only to the common whitefishes, *Coregonus albus* and *Coregonus clupeiformis,* unless prefaced by the name of the particular species of whitefish employed. The fishes commonly known to the fishermen and the trade as "lake herring" and "cisco" should be so called, with or without qualifying names, but should not be designated "whitefish."